

Remarks

Claims 1- 63 are pending in the present application. Claims 15 and 53-63 are withdrawn. Claims 1-14 and 16-63 are rejected.

Claims 15 and 53-63 are hereby cancelled without prejudice. Applicants reserve the right to pursue these claims in a continuing application.

New claims 64-74 are presented for examination.

Claims 1, 19, 27, 36 and 45 are amended so that component A reads "an ethoxylate of an alcohol, the alcohol having Formula I." This clarifies that the alcohol has formula I. Claim 1 is amended such that the inorganic pH adjusting component is "present in an amount such that the pH of the cleaning composition is less than 2." The antecedent basis for this amendment is found in the specification on page 12, ll. 4-5. Claims 19, 27, 36 and 45 are further amended such that the inorganic pH adjusting component is "present in an amount such that the pH of the cleaning composition is less than 2 or between 9 and 13." The antecedent basis for this amendment is found in the specification on page 9, ll. 28-29. Claim 17 is amended such that "the ethoxylate having Formula R₁-OH" is replaced with "component A."

Claim Rejections Under 35 U.S.C. § 112

Claim 17 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention.

Claim 17 is amended such that "the ethoxylate having Formula R₁-OH" is replaced with "component A." This amendment clarifies, as suggested by the Examiner, that the alcohol has formula I. Claim 1 is amended to make it clear that the ethoxylate is formed

from this alcohol. Accordingly, claim 17 is now allowable under 35 U.S.C. § 112, second paragraph.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-4, 7, 9, 16, 17, 19, 20, 24, 26-29, 33 and 35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bershas et al., U.S. Patent No. 5,476,601.

Independent claims 1, 19, 27, 36, and 45 are amended to limit the invention to specific pH ranges that are particularly useful for cleaning applications. Specifically, claim 1 is amended such that the inorganic pH adjusting component is “present in an amount such that the pH of the cleaning composition is less than 2.” Independent claims 19, 27, 36 and 45 are further amended such that the inorganic pH adjusting component is “present in an amount such that the pH of the cleaning composition is less than 2 or between 9 and 13.”

Bershas et al. discloses lubricant and surface conditioner compositions that are different than the cleaning solutions of the present invention. Bershas et al. explicitly teaches different pH ranges than used in the present invention:

In a complete Stage 4 working composition according to the embodiments of this invention including amine oxide or quaternary ammonium salts as a necessary component, the pH is preferably maintained in the range from 2.3 to 3.3, more preferably from 2.5 to 3.1, still more preferably from 2.70 to 2.90. **Values of pH lower than those stated usually result in less resistance than is desirable to dome staining, while pH values higher than those stated tend to result in inadequate etching of the surface to assure good adhesion of subsequently applied lacquers and/or inks.**

Bershas et al., col. 9, l. 62- col. 10, l. 10

Moreover, Bershas et al. explicitly teaches away from the pH ranges of claims 1, 19, 26, 36, and 45, stating that ranges outside of its teachings are undesirable.

It should also be appreciated that Bershas et al. discloses lubricant and surface treatments to enhance mobility. Moreover, the compositions of Bershas are applied after cleaning. The present invention provides compositions that are used to clean aluminum cans. To this end, the present invention includes cleaning solution specific limitations - "the cleaning composition has an average water-break-free percent reduction of less than 50% after 7 days aging" in claim 1, "the cleaning composition is capable of cleaning an exterior wall of an aluminum can such that the percent of total surface area of the exterior wall which supports a continuous film of water is greater than 50% after the aluminum can is cleaned with the cleaning composition" in claim 19, and "the cloud point of a working composition of the cleaning composition is greater than about 125° F" in claim 27. These cleaning specific limitations further define the present invention, and distinguish it from the lubricating compositions of Bershas et al. Moreover, these limitations are not inherent and represent a further characterization of the present invention. This is easily verified by referring to the experimental data provided in the Specification. For example, consider Table 7 in which the water-break-free percentage varies widely even for similarly sized R₁ groups. In Table 7, C12 group is observed to have a 100% value while some C13 groups are even as low as 0%. Moreover, even among C13 groups a variability from 0 to 84% is observed. It is this very variability which necessitates the additional cleaning solution-type limitations set forth above to define embodiments of the present invention.

Accordingly, Claims 1-4, 7, 9, 16, 17, 19, 20, 24, 26-29, 33 and 35 are allowable under 35 U.S.C. § 102(b) over Bershas et al.

Claims 1-4, 7, 9, 16, 17, 19, 20, 24, 26-29, 33 and 35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Banaszak et al, U.S. Patent No. 5,584,943.

Banaszak et al. also does not teach compositions having the pH ranges of amended claims 1, 17, 26, 36, and 45. Table 5 of Banaszak et al. shows compositions with pH values from 2 to 6 which are clearly no less "than 2" or "from 9 to 13."

Moreover, even though Banaszak et al. discloses cleaning compositions, this reference fails to disclose the cleaning solution specific limitations set forth above in connection with the discussion regarding Bershas et al. Therefore, independent claims 1, 19, and 27 are further allowable for the same reasons as set forth above.

Accordingly, for at least this reaction, claims 1-4, 7, 9, 16, 17, 19, 20, 24, 26-29, 33 and 35 are allowable under 35 U.S.C. § 102(b) over Banaszak et al.

Claims 1-3, 9, 12, 14, 16, 17, 19, 26-28 and 35-38 are rejected under 35 U.S.C. § 102(b) as being anticipated by Hoshowski et al., U.S. Patent No. 4,960,588.

Hoshowski et al. is directed to a hair treating compositions which is clearly a very different application than the aluminum can cleaning compositions of the present invention. Moreover, Hoshowski et al. also teaches away from the pH ranges of independent claims 1, 19, 26, 36, and 45:

It also has been demonstrated that regardless of the percentage amount of the ionizable metal salt and amino-containing compound in the hair treating composition, the composition must have a **pH in the range of about 2.7 to about 4.5** in order to achieve the benefits and advantages of the present invention

Hoshowski et al., col. 12, ll. 31-36 (emphasis added)

Independent claims 1, 19, and 27 are further allowable for failing to disclose the cleaning solution specific limitations set forth above.

Accordingly, for at least this reason, claims 1-3, 9, 12, 14, 16, 17, 19, 26-28 and 35-38 are allowable under 35 U.S.C. § 102(b) over Hoshowski et al., U.S. Patent No. 4,960,588.

Regarding claims 64-74, each of these claims provide for a pH range that is not disclosed in Bershas et al., Banaszak et al. and Hoshowski et al.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-14 and 16-52 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Li et al, U.S. Patent No. 6,214,777.

Li et al. discloses lubricating compositions with pH ranges that are different than amended claim 1. Specifically, Li et al. states that:

Generally the neutralizing agent is present in amount to adjust the pH of the composition to a range of about 3 to about 9.5, preferably 4.5 to 8.0, and more preferably in the range of 5.5 to 7.5.

Li et al., col.

Clearly, the pH ranges of Li et al. are higher than 2 are required by claim 1. Accordingly, claims 1 - 14 and 16-18 are allowable over Li et al. under 35 U.S.C. § 103(a).

Regarding independent claims 1, 19, 26, 36, and 45, the Examiner states that Li et al. does not disclose "the linear alkyl group and ethoxy groups as those recited." The Examiner attempts to dismiss this serious deficiency of Li et al. by stating that "it has been held obvious to select a value in a known range by optimization for the best results" The limitation in dispute is:

wherein R₁ is a saturated or unsaturated, straight-chain or branched alkyl having from 14 to 80 carbon atoms

It should be pointed out that this is a structure limitation on a component of the cleaning solution. It is not a limitation that can be merely varied for optimization purposes.

Li et. al discloses lubricating compositions that include a quarternary phosphonium compounds. Moreover, the part of Li et al. that the Examiner attempts to utilize in the present rejections is a laundry list of surfactants that may be included in the compositions of that reference. Utilizations of Li et al. in this manner merely stands for the proposition that such surfactants exist. Therefore Li et al. does not disclose the composition of the present invention in which a pair of surfactants - one based on formula 1 and the other being different than the first. Li et. does not imply such a combination. For at least this additional reason, independent claims 1, 19, 27, 36 and 45 are allowable.

Independent claims 1, 19, and 27 are further allowable for similar reasons set forth above regarding the cleaning solution specific limitations. Li et. al only discloses lubricating compositions. Again, claims 1, 19, and 27 include the following cleaning solution specific limitations - "the cleaning composition has an average water-break-free percent reduction of less than 50 % after 7 days aging" in claim 1, "the cleaning composition is capable of cleaning an exterior wall of an aluminum can such that the percent of total surface area of the exterior wall which supports a continuous film of water is greater than 50% after the aluminum can is cleaned with the cleaning composition" in claim 19, and "the cloud point of a working composition of the cleaning composition is greater than about 125° F" in claim 27.

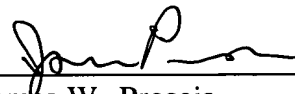
New claim 64 is allowable for the same reasons set forth above for claims 19, 27, 36, and 45. New claims 65-74 are allowable since these claims disclose a pH range that is not provided for in Li. et.

Conclusion

Applicants have made a genuine effort to respond to each of the Examiner's objections and rejections in advancing the prosecution of this case. Applicants believe that all formal and substantive requirements for patentability have been met and that this case is in condition for allowance, which action is respectfully requested. If any additional issues need to be resolved, the Examiner is invited to contact the undersigned at his earliest convenience.

A check in the amount of \$120.00 is enclosed to cover the Petition fee for a one-month extension. Please charge any additional fees or credit any overpayments as a result of the filing of this paper to our Deposit Account No. 02-3978.

Respectfully submitted,
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